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## Review of methods of organizing the content of the curriculum in the educational system , based on ICT ( Information and Communication Technology ) from the experts' view

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### Abstract

The purpose of this study is review of methods of organizing the content of the curriculum in the educational system , based on ICT ( Information and communication Technology ) from the experts view .The research method is descriptive – surveying one and the community regarded as 70 curriculum , Educational technology and E-learning professors from ( Tehran shahid Beheshti , Alameh Tabatabaie , Teacher Training , Lecturer Training , Islamic Azad ) Universities .58 of these professors were selected by stratified sampling method . A questionnaire made the scholar designed based on theoretical and in the three components , such as ways of vertical – horizontal – integrated organizing , with 28 and in the Likert scale .Validation of the questionnaire to separate components was calculated 78 % by Cronbach Alpha. The research data were evaluated at both descriptive and inferential statistics using SPSS software . To response to first to third questions , such as vertical – horizontal – integrated organizing , chi- square Test and to fourth question , F-Test were used . It became obvious that all three groups of vertical , horizontal and integrated ways are more applied in the system based on ICT .Therefore , there is not a significant difference between the there group's views , and Ho assumption rejects and among the methods of vertical organization of content , they regarded horizontal organizing , organizing way based on extensive field , and infra-field . organizing way for integrated organizing as the highest and the first way in this type of organization

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**Keywords :** *Information and Communication Technology ,organizing method , Expert , Educational system*

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### 1: Introduction

This entry to the filed of education has created major developments in this field , particularly curriculum program and it has caused some changes in the filed of preparing lesson plan, specially in organizing of content(Talebzadeh Nobarian,2002).Generally ,organizing of content is carried both vertical and horizontal forms organization .Vertical organization often proceed to concepts adjustment and learning skills in one subject during different years . Horizontal organization of content often regards to communication between the educational materials of various courses which students have to learn during the school year . In addition to these organizations , there is a new organization that has been less used in the traditional system and it may be more suitable to organization of content based on Information and Communication Technology system . Giving a picture to the learning individual , this organization increases his learning and get him colder to the real life ( Maleki , 2004 ) .

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This type of organization of program curriculum content is organizing the content inclusive which predisposes making learning meaningful for students . Attention to content organizing methods in the educational system in a part of created necessity in this study , because it shows growing knowledge and scientific and technological advances on one hand , and importance of ways to organize content based on Information and Communication Technology system on the other hand . In a paper titled application of Information and Communication Technology preparing the curriculum by Mehdi Mahmoodi in 2002, results shows effects of Information and Communication Technology to prepare curriculum cause using an integrated curriculum for teacher and students that before its preparing intends to inspire a specific knowledge to the students , predisposes a ground through its increase ability of individual students and their personal experiences (Mehr Mohammadi,1999)

In Qasim Haji Qasemi's research that has set to providing a model for the secondary curriculum with the approach of using Information and Communication Technology , the results show different models of the secondary curriculum has been brought up which has investigated them regarding to Information and Communication Technology in this study , and the scholar has been managed to bring forward a model identical approach of using Information and Communication Technology in the secondary curriculum ( Haji Qasemi , 2006 ) .

Byalv Kachala ( 1996 ) has been reviewed the impression of Information and Communication Technology in education and concluded that one of the most important advantages of Information and Communication Technology usage in education is motivation students to study and learning . In this respect , the role of the teachers and curriculum planners in providing possibility of students and easy access to new technologies in the classroom is important ( Soleymani , 2004 ) .

With a look at the history of researches some questions create to answer , such as what principles should be used in organizing the program content , curriculum-based Information and Communication Technology , and how should the integrated organization of content in the system based on Information and Communication Technology be used , and whether these changes could revolute curriculum program based on Information and Communication Technology . The variables in this study include : Vertical and horizontal ways of organizing content , organizing the inclusive content and its principles and criteria .

### **1.1. Research Questions**

1. How is the vertical organization of content method based on Information and Communication Technology in education system ?
2. How is the horizontal organization of content method based on Information and Communication Technology in education system ?
3. How is the integrated organization of content method based on Information and Communication Technology in education system ?
4. Has mentioned organizing methods use in the educational system based on Information and Communication Technology to one size ?

### **2.The Research Method**

Due to the goal of the subject , descriptive survey research method is used in this study . Descriptive researches have both practical and basis aspects . The results of this research , in applicable dimension , are used in decision and policy making and planning ( Shylsun, 2003 ) .Subjects of planning are planning for social , Economic , political and Education affairs and phenomenon that involves predicting and estimating the future . So , in this study , we analysis curriculum organizing of content based on information and communication technology according to view of E- learning specialists , curriculum planners and Educational technologists with surveying approach and Delphi type ..The sightly test cases regarded as 70 curriculum educational technology and E-learning professors from ( Tehran shahid Beheshti , Alameh Tabatabaie , Teacher Training,Lecturer Training ,Islamic Azad )

Universities .To determine the desired sample , regarding the research includes specialists community , Educational technology , specialists community , and E- learning specialists community , at first the cluster sampling method is used , and after the universities were determined , stratified sampling method is used . Volume of each sample is designated as it in community , then members were selected randomly .

Approach of tools for data collection in this paper is using the packet questionnaire which its questions have been classified to three sections. The Questionnaire inquiries in 2 sections are designed include :General profile and the main questions ( 28 questions ) , 5 responses is provided for each question according to Likert spectrum , that are valued from 1 to 5 ( very low, low , medium , high very , high ) , which indicates the application of content organization methods based on information and communication technology . Using krbakh alpha correlation of the questionnaire inquiries obtained  $r=87\%$  that has an acceptable reliability .

In this study, the collected data have been analyzed by SPSS software , and the results have been provided in two sections of descriptive and inferential statistics . in descriptive statistic part , the cove indicators have been used , such as frequency , percentage , mean , tables , chart and indices of dispersion like standard deviation and variance . In the inferential statistics , the chi-square test was used to answer one to third research questions , and to answer the fourth question , ANOVA test was used .

### 3- Results

How is the way of vertical organization of content based on Information and Communication Technology :  $H_0$  hypothesis fails with confidence , because of significant level given in Table 1 and compare it with the amount of allowable error 0/05 . It means there is a difference between the observed distribution and the expected one . In other words , it can be concluded results are not because of a chance and this means method of vertical organization of content apply in the system based on Information and Communication Technology .

**Table 1.** Statistical Test Vertical organizing of content method

Vertical organizing of content	
Chi-Square	33/379
Degree of freedom	1
Significant level	0/000

How is the way of horizontal organization of content in educational system based on Information and Communication Technology :  $H_0$  hypothesis fails with confidence , because of significant level given in Table 2 and compare it with the amount of allowable error 0/05 . It means there is a difference between the observed distribution and the expected one . In other words , it can be concluded results are not because of a chance and among all of the horizontal organization of content , they considered wrap up principle with a score of 69 percent as the first horizontal methods in the educational system based on Information and Communication Technology .

**Table 2.** Statistical Test Horizontal organizing of content method

Horizontal organizing of content	
Chi-Square	19/931
Degree of freedom	1
Significant level	0/000

How is the way of integrated organization of content in educational system based on Information and Communication Technology:

$H_0$  hypothesis fails with confidence , because of significant level given in Table 3 and compare it with the amount of allowable error 0/05 . It means there is a difference between the observed distribution and the expected one . In other words , it can be concluded results are not because of a chance and it means that integrated organization of content method is used more in the system based on Information and Communication Technology .Among all of the horizontal organization of content , they considered horizontal organization of content based on wide-field with score of 65/5 , and organizing method based on individual fields with score of 60/3 , as the first and highest horizontal method respectively in educational system based on Information and Communication Technology

**Table 3 . Statistical Test Integrated organizing of content method**

<b>Integrated organizing of content</b>	
<b>Chi-Square</b>	11/655
<b>Degree of freedom</b>	1
<b>Significant level</b>	0/001

Do mentioned organizing methods ( Vertical – Horizontal – Integrated ) use in educational system based on Information and Communication Technology at one size : According to significant level given in Table 4 of ANOVA and compare it with the amount of allowable error of 0/05 , we conclude with confidence of 95 percent that  $H_0$  hypothesis is accepted . It means that they considered mentioned organizing methods in educational system based on Information and Communication Technology have same use and infra-field method with the score of 69 percent and multi-field organizing method with the score of 60/3 percent , as the highest and important horizontal organization of content respectively .

**Table 4 . ANOVA**

	Set of squares	Freedom Level	Squares mean	F Amount	Significant level
<b>Within the group</b>	0/552	2	0/261	1/350	0/262
<b>Among the group</b>	33/071	171	0/193		
<b>Total</b>	33/594	173			

#### 4.Conclusion.

The results of responses to the research questions indicate that experts believe about the way of vertical organization of content that this method has more use in the educational system based on Information and Communication Technology and among the total of vertical organizing of content methods , they considered vertical method based on wrap up with score of 69 percent as the first and the highest vertical method in the educational system based on Information and Communication Technology . In general , organizing method based on wrap up principle and then organizing method from easy to hard , could enhance the curriculum program and help to the planners to obtain necessary skills develop educational programs proportional to the information age , which these presented methods are attractive to Taghipour , Norouzi , Maleki , Fardanesh Taghipour (2001), Norouz i(2003),Malek i(2004), Fardanesh (1993) .

The results about the second hypothesis also show the experts' view about horizontal organizing of content method believe this could be more applicable in the educational system based on Information and Communication Technology . Among the total of horizontal organizing of content methods, they considered horizontal organizing of content based on wide-fields with score of 65/5 percent and organizing method based on separate-fields with score of 60/3 percent as the first and highest way of horizontal organizing of content based on Information and Communication Technology, and they can play an important role in the educational system . Organizing methods

based on wide-fields and separate fields have been stressed by Shariatmadari and Ghoorchian (Shariatmadari (2001), Ghoorchian ( 1995 ) .

The results of the third hypothesis stresses the experts believe about integrated way of organizing of content which this organizing based on Information and Communication Technology could has a more application among the total methods of integrated organizing . They considered infra-field organizing method with the score of 69 percent and multi-field integrated organizing method with the score of 60/3 percent as the highest and important ways of horizontal organizing of content . Infra-field organizing method and multi-field introduced by Yaqma and Peyghami ( Yaqma 2005 , Peighami 2007 ) .

According to the calculated F score , there is not a significant difference between organizing of ( Vertical – horizontal – integrated ) curriculum program , and it can be said that the experts' view are in one direction at using these methods in the educational based on Information and Communication Technology . It means the mentioned organizing in the educational system based on Information and Communication Technology have the same use and there is not any difference from a point if their application . Therefore, according to the findings of the study , it offers to the education authorities to take action to put training courses , develop professional planners and familiar them with how to use the method of organizing of content . **All planners with multimedia specialists must take a major step to create learning conditions providing** appropriate training content in text, picture and audio formats , participating teachers and students in developing lesson plans in the computer-based environment . At the end it was recommended to young researchers to do some researches about ways of applying new content methods of organizing.

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